ABSTRACT

A method and apparatus for electronically processing video signals representing images of an object or scene so that details of some portion or all of said object or scene are enhanced in the video display reproduction of said images. Video image signals from a video camera or other source are processed to derive digital color-representative signals and a digital luminance signal, and the luminance signal is filtered to remove higher spatial frequency components. The resulting low pass digital data is subtracted from the original luminance image data, leaving digital data representing the high-pass image components. The high-pass image digital data is passed to an amplification stage where all or only selected pixels are amplified by a factor that varies as a function of the low-pass data value of those pixels and by the location of said pixels within said image. This enables different degrees of enhancement of the light and dark areas of the image. The low-pass data and the high-pass data passed by the amplification stage are subsequently added together to form the finite local enhancement version of the luminance data. The operator may interface with the boost table by selecting a region of the image to be enhanced, and/or by selecting a profile of boost values which produce a specific enhancement pattern.

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